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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,793	06/07/2001	Kang Soo Seo	2080-3-25	9026

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EXAMINER

LAYE, JADE O

ART UNIT PAPER NUMBER

2617

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/876,793	Applicant(s) SEO ET AL.	
	Examiner Jade O. Laye	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 3,6,13,17 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/24/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 8/24/04 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Specification

2. The disclosure is objected to because of the following informalities: The term “*infra-coded*” is used throughout the Specification. The Examiner is not aware of such a term. However, for the purposes of examination, the Examiner assumed applicant is referring to “*intra-coded*,” an MPEG term well known in the art.

Appropriate correction is required.

Claim Objections

3. Claims 3, 6, 13, 17, and 19 are objected to because of the following informalities:
- a. The wording of claim 3 is unclear and confusing. Specifically, the phrase “...which is for managing said one or more titles, and in each title” is unclear.
 - b. Claims 6, 13, 17, and 19 all contain the term “*infra-coded*.” As stated above, the Examiner assumes applicant refers to “*intra-coded*.”

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6-10, 13-15, and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Nikaido et al. (US Pat. No. 6,889,001).

As to claim 1, Nikaido et al disclose a recording medium comprising real-time data (i.e., data being read from DVD) belonging to titles and/or chapters, and data belonging to a plurality of menu pictures, each picture distinctively differentiated from each other. (Abstract; Col. 2, Ln. 22-49; Col. 8, Ln. 33-38 & 51-54; Figs. 9 & 10). Accordingly, Nikaido et al anticipate each and every limitation of claim 1.

Claims 8, 15, and 18 correspond to the apparatus claim 1. Thus, each is analyzed and rejected as previously discussed.

[Note: Claim 18 contains an additional limitation directed to transmitting menu picture data to an external apparatus after modulation. This limitation is inherently disclosed within Nikaido in Col. 6, Ln. 54-64. Here, Nikaido discusses demodulating the read data before transmission to an external apparatus. Therefore, it is inherent the read data was modulated before it was transmitted to said external apparatus.]

[Note: Claim 15 contains an additional limitation directed to a digital interface. This limitation is also inherently disclosed because the system is transmitting a digital signal. Therefore, it is inherent the system contain a digital interface in which to transmit said digital signal.]

As to claim 2, Nikaido further discloses that all menu video object data is contained within the area for video manager data. (Col. 4, Ln. 22-46 & Fig. 1-3). Accordingly, Nikaido et al anticipate each and every limitation of claim 2.

Claim 9 corresponds to the apparatus claim 2. Thus, it is analyzed and rejected as previously discussed.

As to claim 3, Nikaido further teaches that all data of the menu pictures is written separately in the area for video manager data. (Col. 4, Ln. 22-46 & Fig. 1-3). Accordingly, Nikaido et al anticipate each and every limitation of claim 1.

Claim 10 corresponds to the apparatus claim 3. Thus, it is analyzed and rejected as previously discussed.

As to claim 6, Nikaido further discloses the use of intra-coded pictures (AKA "I-frames") and predictive-coded pictures (AKA "P-frames"). (Col. 5, Ln. 17-28 & Col. 8, Ln. 51-67). Accordingly, Nikaido et al anticipate each and every limitation of claim 6.

Claim 13 corresponds to the apparatus claim 6. Thus, it is analyzed and rejected as previously discussed.

As to claim 7, Nikaido further discloses the displaying of thumbnail pictures corresponding to various scenes within the video data. (disclosed in cited portions used to reject claim 1). Accordingly, Nikaido et al anticipate each and every limitation of claim 7.

Claim 14 corresponds to the apparatus claim 7. Thus, it is analyzed and rejected as previously discussed.

As to claim 17, Nikaido further teaches the use of I, P, and B frames. (Col., 5, Ln. 17-28 & Col. 8, Ln. 51-67). In MPEG compression, it is inherent the encoded stream be sequentially sent (i.e., IBBBBP) and that said encoded stream be sent repeatedly (i.e., IBBBBPIBBBBP...). Accordingly, Nikaido et al anticipate each and every limitation of claim 17.

Claim 19 corresponds to the method claim 17. Thus, it is analyzed and rejected as previously discussed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nikaido in view of Dinallo et al. (US Pat. No. 5,929,857).

Claim 4 recites the medium of claim 1, wherein the menu item includes one or more directional icons for switching the menu page. As discussed above, Nikaido anticipates each and every limitation of claim 1, but fails to disclose the limitation of claim 4. However, within the same field of endeavor, Dinallo et al disclose a similar system which utilizes directional icons to switch between menu pages. (Figs. 4, 6, & 7). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of Applicant's invention to combine the systems of Nikaido and Dinallo in order to provide a user interface having extensive user functionality.

Claim 11 corresponds to the apparatus claim 4. Thus, it is analyzed and rejected as previously discussed.

6. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nikaido in view of Chen et al. (US Pat. No. 5,917,830).

Claim 5 recites the medium of claim 1, wherein a null data pack has been appended to each menu picture data. As discussed above, Nikaido anticipates each and every limitation of

claim 1, but fails to disclose the limitation of claim 5. However, within the same field of endeavor, Chen et al disclose a similar system wherein null packets are inserted (i.e., appended) into the video stream for the purpose of preventing buffer overload. (Abstract; Col. 2, Ln. 40-54). The exact placement of such null packets is obvious and a matter of simple design choice. Accordingly, it would have been obvious to one of ordinary skill in this art at the time of Applicant's invention to combine the systems of Nikaido and Chen in order to prevent RAM buffer overload through utilizing null data packets appended to each menu picture data.

Claim 12 corresponds to the apparatus claim 5. Thus, it is analyzed and rejected as previously discussed.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nikaido in view of Na et al. (US Pat. No. 6,504,996).

Claim 16 recites the method of claim 15, wherein the OSD data and menu page data are transmitted through different channels of the digital interface. As discussed above, Nikaido anticipates each and every limitation of claim 15, but fails to *specifically* disclose the limitation of claim 16. However, within the same field of endeavor, Na et al disclose a similar system wherein audiovisual data is transmitted through the Isochronous channel of an IEEE 1394 digital interface, while other data is transmitted through the Asynchronous channel of said interface. (Fig. 4). Moreover, in the alternative, the Examiner takes Official Notice that it was well known in the art at the time of Applicant's invention to utilize an IEEE 1394 interface (i.e., "fire wire") to transmit audio visual data over the "isoc" channel, while transmitting other data over the "asynch" channel. The "isoc" channels guarantees simultaneous distribution of audio and video,

thereby allowing the viewer to hear and view corresponding audio/visual signals at the same time. Accordingly, it would have been obvious to one of ordinary skill in this art at the time of Applicant's invention to combine the systems of Nikaido and Na in order to provide a system wherein the audio/visual data would be simultaneously displayed to the viewer, thereby avoiding a delay in video and its corresponding audio data.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Florin et al (US Pat. No. 5,583,560) disclose an interface containing directional icons.
- b. Takemoto (US Pat. No. 6,335,742) discloses a graphical user interface which displays thumbnails.
- c. Takahashi et al (US Pat. No. 6,483,983) disclose an interface which displays video thumbnails.
- d. Watkins (US Pat. No. 6,728,477) discloses an interface which presents multiple angle scene displays.
- e. Park et al (US Pat. No. 6,724,981) disclose an apparatus for transferring DVD information.
- f. Yanagihara et al (US Pat. No. 6,233,393) disclose an apparatus for transferring data across an asynchronous and isochronous channel.
- g. Lin et al (US Pat. No. 6,574,417) disclose a digital interface.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jade O. Laye whose telephone number is (571) 272-7303. The examiner can normally be reached on Mon. 7:30am-4, Tues. 7:30-2, W-Fri. 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner's Initials JL
June 27, 2005.


NGOC-YEN VU
PRIMARY EXAMINER